

## REMARKS

Claims 1-7, 34-47, 58-66, 78-86, and 176-203 are pending. Claims 34, 38, 39, 45, 58, 65, and 78 have been amended. Claims 176-203 are new. A clean copy of the pending claims incorporating Applicant's amendments is attached for the Examiner's convenience.

### SPECIFICATION

The Abstract has been amended to address the Examiner's concerns. A clean copy of the Abstract is attached to this response for the Examiner's convenience.

### CLAIM OBJECTIONS & INDEFINITENESS REJECTIONS

Claims 34, 38, 45, and 65 have been amended to address the Examiner's concerns.

### PRIOR ART REJECTIONS

In responding to the Examiner's prior art rejections, Applicant will only attempt to justify the patentability of his independent claims (1, 34, 58, 78, 176, 183, and 190). As the Examiner understands, should these claims be patentable over the prior art, the narrower dependent claims must also be patentable over the prior art. Hence, the patentability of the dependent claims is not separately addressed by the Applicant.

#### *Claim 1 (and new Claims 176 and 183)*

The Examiner rejects claim 1 as anticipated under 35 U.S.C. 102(b) by USP 5,722,526 ("Sharrard").

Applicant acknowledges that Sharrard discloses a system similar to the Applicant's as it purports to vend products only after the verification of some form of consumer information (e.g., age). However, Applicant claims "optically analyzing the form to electronically determine information about the consumer" (emphasis added). Sharrard mentions optical analysis of forms, but provides no details as to how it could be implemented. Sharrard's only disclosure regarding optical analysis is the following sentence: "The birth date of the user would be inscribed on the card by characters capable of being read and interpreted by a optical reader or would be of a more direct machine readable language such as a bar-stripe code or a magnetic strip." Col. 2 l. 65 to col. 3, l. 2.

Sharrard was discussed in Applicant's specification, which is quoted in salient part:

"Some prior art vending approaches, such as that of Sharrard, U.S. Pat No. 5,722,526, have contemplated using drivers licenses or other identification cards to verify the customer's age. In the Sharrard system, a customer inputs money into the vending machine and makes his or her selection. Thereafter, the customer is prompted to input an identification card such as a state government issued identification card or a driver's license containing the customer's birth date. The vending machine either optically reads the written birth date on the face of the card, or reads the birth date data from a magnetic strip contained on the back of the card. A processor unit compares this data with the present date that is keyed into the vending machine by its operator, and determines whether the customer is of a sufficient age to purchase the product.

Sharrard's disclosure notwithstanding, it is difficult to implement Sharrard's technique for age verification. As noted previously, not all driver's licenses contain magnetic strips, and even for those that do, age data may not be present on the strip or may be difficult to extract. Further, despite Sharrard's general disclosure of the idea of optically scanning a driver's license to extract age data, such a process is not disclosed or enabled in Sharrard, but is merely noted as a good idea."

Applicant's Specification at pg. 4, ll. 6-21 (emphasis added). In short, Sharrard's mere mention of optical analysis of an ID card *is not sufficient to anticipate Applicant's claims because Sharrard does not enable optical analysis.*

As the Examiner appreciates, “[t]o anticipate a claim, a reference must disclose every element of the challenged claim *and enable one skilled in the art to make the anticipating subject matter.*” *PPG Indus., Inc. v. Guardian Indus. Corp.*, 75 F.3d 1558, 1566 (Fed. Cir. 1997) (emphasis added). That is, “the prior art reference must teach one of ordinary skill in the art to make or carry out the claimed invention without undue experimentation.” *Minnesota Mining & Mfg. Co. v. Chemque, Inc.*, 303 F.3d 1294, 1306 (Fed. Cir. 2002). Applicant acknowledges that the Examiner is allowed to presume that a prior art reference is enabling, *see Amgen, Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1355 (Fed. Cir. 2003), but “the applicant . . . can then overcome that rejection by proving that the relevant disclosures of the prior art patent are not enabled,” *id.* When assessing whether a prior art reference is enabling, the reference must be “considered together with the knowledge of one of ordinary skill in the pertinent art.” *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994).

When these legal standards are considered, it is clear that Sharrard does not disclose sufficient details on how ID forms can be optically analyzed to make an assessment of information printed on them. In fact, Sharrard contains *no* disclosure of these details, but merely mentions optical analysis as a technique that can be used with his system, along with well known bar-code stripe and magnetic strip technologies. While bar-code stripe and magnetic strip technologies are well known in the vending machine arts, Sharrard’s failure to disclose specific details of the implementation of these technologies is excusable from an enablement standpoint, as one skilled in the art of vending machines would understand how to implement these technologies. However, optical technologies are a different story; Applicant knows of no prior art references that disclose that the implementation of optical analysis of forms in the vending machine arts. Optical analysis in the vending machine arts is an emerging technology, which

requires difficulty and skill to implement over and beyond what is known to typical artisans in this industry. Therefore, one of ordinary skill in the art of vending machines, reading Sharrard, could implement an optical analysis system only through significant (i.e., undue) experimentation because such technologies would be foreign to ordinary artisans practicing in that art.

Applicant's specification and their efforts in engineering an optical analysis system underscore the technical challenges involved in making an optical analysis system for a vending machine, and hence show why Sharrard's disclosure is inadequate in this regard. The Examiner will appreciate that Applicant's specification, which includes 83 pages of disclosure and 15 drawings, is rich in details concerning how to optically analyze the forms presented to the vending machine to enable a vend on the basis of the information on the form; clearly optical analysis of forms in the vending machine context is not a simple task, particularly when it is necessary to discriminate one type of form versus another. Moreover, Applicant has spent through its agents hundreds of hours engineering their commercial system to get it to function adequately for commercial use. These activities, along with a lack of prior art references disclosing the details of how to implement optical analysis of forms in the vending machine context, clearly show that Sharrard's mere mention of the use of an "optical reader" is not sufficiently enabling to reject Applicant's claims. In short, Sharrard does not enable Applicant's limitation in claim 1 of "*optically analyzing* the form to electronically determine information about the consumer."

Moreover, new claims 176 and 183, which constitute narrowed versions of claim 1, are patentable over Sharrard. Claim 176 recites that the form received "is one of a plurality of different types of forms receivable by the system." Sharrard does not disclose this limitation,

and certainly doesn't enable or provide any details about how his system could differentiate between forms of different types (e.g., a Texas drivers license v. a Louisiana drivers license) as is claimed. Claim 183 recites that the forms are optically analyzed "using optical character recognition algorithms." Again, this limitation is not disclosed in Sharrard, and again it is certainly not enabled. These additional limitations in claims 176 and 183 are unique and non-obvious differences over Sharrard in the art of vending machines.

Claim 34 (and new Claim 190)

The Examiner rejects claim 34 for obviousness<sup>1</sup> given the combination of USP 5,386,103 ("DeBan") and USP 6,032,859 ("Muehlberger").

Applicants submits that there is no suggestion or motivation to combine these references. Indeed, the proposed combination is technically illogical. See generally col. 6, l. 28 to col. 7, l. 7. DeBan's system take an optical image of a customer's face, and then processes this optical image to produce a set of "projection vector coefficients" which represents the image. Col. 6, ll. 40-44. These vector coefficients are then printed on a form, such as on a magnetic card strip or as magnetic ink characters on a check. Col. 6, ll. 44-46. After storage on the form in this fashion, the customer can then, for example, go to cash the check by passing it through a card reader 24 at a teller station 14 (Fig. 1). Col. 6, ll. 47-60. At the same time, a camera 27 (i.e., CCD array) digitizes the facial image of the customer, and this image is processed, and then compared against the vector coefficients read off of the form to authenticate the transaction. Col. 6, l. 61 to col. 7, l. 7. A disclosed Automated Teller Machine (ATM) transaction occurs in the same way. Col. 9, l. 58 to col. 10, l. 23.

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<sup>1</sup> The Examiner cites 35 U.S.C. 102(b), an anticipation provision, but Applicant understands the text of the rejection of claim 34 to be based on obviousness principles, and responds accordingly.

The important point (and a point upon which the Examiner agrees) is that DeBan's system does not take an optical image of the form; instead image information, in processed form, is already present on the customer's form in DeBan's system, is read by (presumably) traditional electric means, and is compared to what is stored in memory.

Muehlberger, by contrast, discloses a terminal with a card reader 20 capable of reading cards of "optical character recognition (OCR) coded stock," col. 2, ll. 61-64, which presumably means that an optical image is taken of the form. But what would be the motivation to employ taking an image of the form as in Meuhlberger and incorporating it into the system of DeBan? The emphasis of DeBan is on a system which does not require an optical image to be taken of the form, because data indicative of an image (the "vector coefficients") is already placed on the form and can be read using traditional non-optical means.

In short, Applicant disagrees that there would be a suggestion or motivation to combine DeBan and Meuhlberger. Such a combination is technically unsound and not one that one of ordinary skill would logically reach. There is no need in DeBan to take an optical image of the form as is taught in Meuhlberger, and this combination would go completely against DeBan's primary teaching of using pre-printed vector coefficients on the forms of interest. Simply put, one skilled in the art would not, given the teaching of DeBan look to Meuhlberger to add optical image taking capability because DeBan already succinctly addresses the problem of optical analysis of the form through preprocessing the customer's image and placing this information on the form.

Additionally, Applicant has added new claim 190, which further limits claim 34 by specifying that the form to be optically analyzed by the system comprises "a plurality of different types of forms receivable by the system," and that the image is analyzed to "determine which

type of form has been received by the system” and to determine consumer information therefrom. These limitations are not disclosed in DeBan or in Meuhlberger. In fact, Meuhlberger expressly discloses performing OCR on cards constituting “coded stock,” which Applicant interprets to mean a single, predictable type of card (form) to be used by the Meuhlberger system. As neither DeBan nor Meuhlberger discloses or suggests these additional limitations in claim 190, they cannot, even when taken together, render Applicant’s claim 190 obvious. See MPEP 2143.

#### Claim 58

The Examiner rejects claim 58 for obviousness given the combination of USP 5,450,938 (“Rademacher”) and USP 6,032,859 (“Muehlberger”).

Claim 58, as amended herein, recites a method for allowing a consumer to pay for a good or service at a vending machine using a *form which is not a credit or debit card*. In other words, the method uses a form that is not the type of card that is normally used to access a consumer account. This is a significant benefit of Applicant’s disclosure, as a more standard form of ID, such as a driver’s license, can be used to access and ultimately pay for a purchase from a vending machine.

In contrast to Applicant’s amendment to claim 58, both Rademacher and Muehlberger discloses systems which use debit cards. For example, Rademacher discloses a system for tying together and operating several vending machines using a common kiosk 10. The kiosk is adapted to receive a coded vend card 25, e.g., a debit card. Col. 5, ll. 38-39. As is common with standard issue debit cards, credit stored on the card is debited as the consumer purchase the good or service from the vending machine. Similarly, Muehlberger also discloses a system using a debit card. See Muehlberger’s Abstract (discussing a counter-top terminal which “activates various debit card transactions”).

Because neither Rademacher nor Muehlberger discloses or suggests a method using forms other than debit or credit cards, even when taken together they cannot render Applicant's claim 58 obvious. See MPEP 2143.

Claim 78

The Examiner rejects claim 78 for obviousness given the combination of USP 5,450,938 ("Rademacher") and USP 6,032,859 ("Muehlberger").

As with claim 58, Applicant has limited claim 78 to specify that the form used with the system "does not comprise a credit or debit card." As noted above, neither Rademacher nor Muehlberger disclose or suggest this limitation, and hence cannot render Applicant's claim 78 unpatentable for obviousness.

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Applicant submits that pending claims 1-7, 34-47, 58-66, 78-86, and 176-203 are patentable over the prior art of record, and requests that a Notice of Allowance be issued for these claims. The Examiner is welcome to contact the undersigned (713-787-1499) to discuss this application.



Respectfully submitted,

A handwritten signature in black ink, appearing to read "Terril G. Lewis".

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**Clean Copy of Pending Claims**

1. (original) A method for determining information about a consumer prior to enabling the vending of a good or service from a machine, comprising:
  - (a) receiving a form containing information about the consumer at the machine;
  - (b) optically analyzing the form to electronically determine information about the consumer; and
  - (c) enabling the vend on the basis of the information.
2. (original) The method of claim 1, wherein the form is selected from the group consisting of an identification card, a driver's license, a social security card, and a passport.
3. (original) The method of claim 1, wherein optically analyzing the form comprises scanning the form to produce an image and comparing the image to image templates.
4. (original) The method of claim 3, wherein the image templates are transmitted to the machine by a system.
5. (original) The method of claim 1, wherein the determined information is selected from the group consisting of the consumer's age, date of birth, name, address, identification number, driver's license number, social security number, and passport number.
6. (original) The method of claim 5, wherein vending is enabled if the consumer is of a suitable age to purchase the good or service.
7. (original) The method of claim 1, wherein the machine is selected from the group consisting of a vending machine, an automatic teller machine, a cash register, and a gas pump.
- 8-33. (canceled)

34. (currently amended) A system, comprising:
- (a) at least one terminal containing a form reader for taking an optical image of a consumer identification form; and
  - (b) at least one memory device within the at least one terminal for storing templates to assist in the analysis of the optical image to determine consumer information therefrom.
35. (original) The system of claim 34, further comprising a server in communication with the at least one terminal.
36. (original) The system of claim 35, wherein the server provides the templates to the memory device.
37. (original) The system of claim 35, wherein the server receives data from the terminal.
38. (currently amended) The system of claim 37, wherein the data is selected from the group consisting of Direct Exchange information, information concerning the contents of the terminal, consumer account information, and consumer credit card information.
39. (currently amended) The system of claim 34, wherein the at least one terminal is a vending machine, and further comprising an enabling circuit for receiving the consumer information to enable the vending of goods or services from the terminal.
40. (original) The system of claim 34, wherein the consumer information is selected from the groups consisting of the consumer's age, date of birth, name, address, identification number, driver's license number, social security number, and passport number.
41. (original) The system of claim 34, wherein the at least one terminal is a gas pump, and further comprising an enabling circuit for receiving the consumer information and enabling the vending of gasoline from the terminal accordingly.

42. (original) The system of claim 41, wherein the consumer information comprises information indicative of the validity of the consumer's driver's license.

43. (original) The system of claim 35, further comprising at least one integrated system in communication with the server.

44. (original) The system of claim 43, wherein the integrated system is selected from the group consisting of credit card databases, governmental law enforcement databases, consumer reporting agency databases, and financial services system databases.

45. (currently amended) The system of claim 35, wherein the server communicates with a plurality of consumer accounts accessible in accordance with the consumer information.

46. (original) The system of claim 35, wherein the system comprises at least two different types of terminals.

47. (original) The system of claim 46, wherein the types of terminals are selected from the group consisting of a vending machine, an automatic teller machine, a cash register, and a gas pump.

48-57. (canceled)

58. (currently amended) A method for allowing a consumer to pay for a good or service having a purchase price at a vending machine using a system, the method comprising:

- (a) receiving at the system consumer account registration information to establish at least one electronic consumer account accessible by the system;
- (b) receiving a form containing information about the consumer into the vending machine, wherein the form does not comprise a credit or debit card;
- (c) optically analyzing the form to electrically determine information about the consumer; and

(d) using the information to electronically charge the purchase price from the at least one consumer account.

59. (original) The method of claim 58, wherein establishing an electronic consumer account comprises communicating with the system using a computerized user interface.

60. (original) The method of claim 58, wherein the form is selected from the group consisting of an identification card, a driver's license, a social security card, and a passport.

61. (original) The method of claim 58, wherein optically analyzing the form comprises scanning the form to produce an image and comparing the image to image templates.

62. (original) The method of claim 58, wherein the determined information is selected from the group consisting of the consumer's age, date of birth, name, address, identification number, driver's license number, social security number, and passport number.

63. (original) The method of claim 58, wherein the at least one consumer account comprises a credit card account.

64. (original) The method of claim 58, wherein the at least one account resides on an integrated system in communication with the system.

65. (currently amended) The method of claim 58, wherein the at least one account comprises a plurality of accounts, and further comprising allowing the consumer to select one of the plurality of accounts prior to using the information to electronically charge the purchase price from the at least one consumer account.

66. (original) The method of claim 58, further comprising enabling the consumer to enter a private key prior to charging the at least one consumer account.

67-77. (canceled)

78. (currently amended) A system for accessing at least one consumer account registered with a system, comprising:

- (a) at least one terminal for receiving a form containing information about a consumer and for producing an optical image of the form, wherein the form does not comprise a credit or debit card;
- (b) a program for analyzing the optical image and determining consumer information therefrom; and
- (c) at least one integrated system in communication with the system which contains at least one consumer account, wherein the at least one consumer account is accessible using the determined consumer information.

79. (original) The system of claim 78, further comprising a user interface to allow the at least one consumer account to be preregistered with the system.

80. (original) The system of claim 78, wherein the form is selected from the group consisting of an identification card, a driver's license, a social security card, and a passport.

81. (original) The system of claim 78, wherein the program compares the image to image templates.

82. (original) The system of claim 78, wherein the determined information is selected from the group consisting of the consumer's age, date of birth, name, address, identification number, driver's license number, social security number, and passport number.

83. (original) The system of claim 78, wherein the at least one consumer account comprises a credit card account.

84. (original) The system of claim 78, further comprising a server disposed between and in communication with the at least one terminal and the at least one integrated system.

85. (original) The system of claim 78, wherein the system comprises at least two different types of terminals.

86. (original) The system of claim 85, wherein the types of terminals are selected from the group consisting of a vending machine, an automatic teller machine, a cash register, and a gas pump.

87-175. (canceled).

176. (new) A method for determining information about a consumer prior to enabling the vending of a good or service from a machine, comprising:

- (a) receiving a form containing information about the consumer at the machine, wherein the form is one of a plurality of different types of forms receivable by the system;
- (b) optically analyzing the form to electronically determine which type of form has been received by the system and to electronically determine information about the consumer; and
- (c) enabling the vend on the basis of the information.

177. (new) The method of claim 176, wherein the form is selected from the group consisting of an identification card, a driver's license, a social security card, and a passport.

178. (new) The method of claim 176, wherein optically analyzing the form comprises scanning the form to produce an image and comparing the image to image templates.

179. (new) The method of claim 178, wherein the image templates are transmitted to the machine by a system.

180. (new) The method of claim 176, wherein the determined information is selected from the group consisting of the consumer's age, date of birth, name, address, identification number, driver's license number, social security number, and passport number.

181. (new) The method of claim 180, wherein vending is enabled if the consumer is of a suitable age to purchase the good or service.

182. (new) The method of claim 176, wherein the machine is selected from the group consisting of a vending machine, an automatic teller machine, a cash register, and a gas pump.

183. (new) A method for determining information about a consumer prior to enabling the vending of a good or service from a machine, comprising:

- (a) receiving a form containing information about the consumer at the machine;
- (b) optically analyzing the form using optical character recognition algorithms to electronically determine information about the consumer; and
- (c) enabling the vend on the basis of the information.

184. (new) The method of claim 183, wherein the form is selected from the group consisting of an identification card, a driver's license, a social security card, and a passport.

185. (new) The method of claim 183, wherein optically analyzing the form comprises scanning the form to produce an image and comparing the image to image templates.

186. (new) The method of claim 185, wherein the image templates are transmitted to the machine by a system.

187. (new) The method of claim 183, wherein the determined information is selected from the group consisting of the consumer's age, date of birth, name, address, identification number, driver's license number, social security number, and passport number.



188. (new) The method of claim 187, wherein vending is enabled if the consumer is of a suitable age to purchase the good or service.

189. (new) The method of claim 183, wherein the machine is selected from the group consisting of a vending machine, an automatic teller machine, a cash register, and a gas pump.

190. (new) A system, comprising:

- (a) at least one terminal containing a form reader for taking an optical image of a consumer identification form, wherein the form is one of a plurality of different types of forms receivable by the system; and
- (b) at least one memory device within the at least one terminal for storing templates to assist in the analysis of the optical image to determine which type of form has been received by the system and to determine consumer information therefrom.

191. (new) The system of claim 190, further comprising a server in communication with the at least one terminal.

192. (new) The system of claim 191, wherein the server provides the templates to the memory device.

193. (new) The system of claim 191, wherein the server receives data from the terminal.

194. (new) The system of claim 193, wherein the data is selected from the group consisting of DEX information, information concerning the contents of the terminal, consumer account information, and consumer credit card information.

195. (new) The system of claim 190, wherein the at least one terminal is a vending machine, and further comprising an enabling circuit for receiving the consumer information to enabling the vending of goods or services from the terminal.

196. (new) The system of claim 190, wherein the consumer information is selected from the groups consisting of the consumer's age, date of birth, name, address, identification number, driver's license number, social security number, and passport number.

197. (new) The system of claim 190, wherein the at least one terminal is a gas pump, and further comprising an enabling circuit for receiving the consumer information and enabling the vending of gasoline from the terminal accordingly.

198. (new) The system of claim 197, wherein the consumer information comprises information indicative of the validity of the consumer's driver's license.

199. (new) The system of claim 191, further comprising at least one integrated system in communication with the server.

200. (new) The system of claim 199, wherein the integrated system is selected from the group consisting of credit card databases, governmental law enforcement databases, consumer reporting agency databases, and financial services system databases.

201. (new) The system of claim 191, wherein the server is capable of communicating with a plurality of consumer accounts accessible in accordance with the consumer information.

202. (new) The system of claim 191, wherein the system comprises at least two different types of terminals.

203. (new) The system of claim 202, wherein the types of terminals are selected from the group consisting of a vending machine, an automatic teller machine, a cash register, and a gas pump.

**10/086,764**

**Clean Copy of Abstract as Amended Herein**

A highly integrated and flexible system for vending products and services to consumers. The system receives information in advance of the vend by having the consumer insert an identification (ID) card, preferably a driver's license, into a point-of-purchase terminal (referred to as an OSU device). The OSU device preferably contains an Optical Scanning Unit (OSU), capable of scanning the textual information on the ID card. In one embodiment, the scanned information is compared against optical templates present in the system to discern or verify the information on the ID card, and is then used by the system to enable or disable the vending transaction, and/or to allow access to several preregistered system accounts.